

Asst. Prof. RUKİYE KARAKIŞ

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: ABD-2098-2021

Yoksis Researcher ID: 105788

Education Information

Post Doctorate, McGill University, Medicine Faculty, Canada 2019 - 2020

Doctorate, Gazi University, Bilişim Enstitüsü, Elektronik Ve Bilgisayar Eğitimi Anabilim Dalı (Disiplinlerarası), Turkey 2009 - 2015

Postgraduate, Gazi University, Bilişim Enstitüsü, Elektronik Ve Bilgisayar Eğitimi Anabilim Dalı (Disiplinlerarası), Turkey 2006 - 2009

Undergraduate, Ondokuz Mayıs University, Faculty Of Education, Department Of Computer And Education Technologies Education, Turkey 1998 - 2002

Foreign Languages

English, B1 Intermediate

Dissertations

Doctorate, Epileptik MRI ve EEG verileri için bulanık mantık tabanlı steganografi uygulaması, Gazi Üniversitesi, Bilişim Enstitüsü, Elektronik Ve Bilgisayar Eğitimi Anabilim Dalı (Disiplinlerarası), 2015

Postgraduate, Yapay sinir ağları ve lojistik regresyon yöntemleri ile meme kanseri koltuk altı lenf nodu durumunun belirlenmesi, Gazi Üniversitesi, Bilişim Enstitüsü, Elektronik Ve Bilgisayar Eğitimi Anabilim Dalı (Disiplinlerarası), 2009

Research Areas

Hiding Information, Data Compression, Data Structures, Artificial Intelligence, Computer Learning and Pattern Recognition, Pattern Recognition and Image Processing, Neural Networks, Biomedical Image Processing

Academic Titles / Tasks

Assistant Professor, Sivas Cumhuriyet University, Teknoloji Fakültesi, Yazılım Mühendisliği Bölümü, 2016 - Continues

Research Assistant, Sivas Cumhuriyet University, Teknik Eğitim Fakültesi, Bilgisayar Sistemleri Öğr., 2015 - 2016

Research Assistant, Gazi University, Bilişim Enstitüsü, Elektronik Ve Bilgisayar Eğitimi Anabilim Dalı (Disiplinlerarası), 2006 - 2015

Research Assistant, Sivas Cumhuriyet University, Teknik Eğitim Fakültesi, Bilgisayar Sistemleri Öğr., 2005 - 2006

Academic and Administrative Experience

Head of Department, Sivas Cumhuriyet University, Teknoloji Fakültesi, Yazılım Mühendisliği Bölümü, 2017 - 2019

Courses

Deep Learning, Postgraduate, 2020 - 2021
Artificial Intelligence, Undergraduate, 2020 - 2021
Yapay Zeka, Undergraduate, 2018 - 2019
Bilgisayar Mimarisi, Undergraduate, 2018 - 2019
Bilgisayar Mimarisi, Undergraduate, 2018 - 2019
Otomatik Kontrol, Undergraduate, 2018 - 2019
Uzmanlık Alan Dersi, Postgraduate, 2018 - 2019
Yapay Zeka, Undergraduate, 2018 - 2019
Sistem Dinamiği ve Denetimi, Undergraduate, 2017 - 2018
Sistem Dinamiği ve Denetimi, Undergraduate, 2017 - 2018
Seminer Dersi, Postgraduate, 2018 - 2019
VERİ YAPILARI, Undergraduate, 2016 - 2017, 2017 - 2018
BİLGİSAYAR MİMARİSİ, Undergraduate, 2016 - 2017, 2017 - 2018
YAPAY ZEKA, Undergraduate, 2016 - 2017, 2017 - 2018
Bilgisayar -1, Undergraduate, 2016 - 2017
Yazılım Mühendisliği, Undergraduate, 2016 - 2017
Yazılım Mühendisliği, Undergraduate, 2016 - 2017
Temel Bilgisayar Teknolojileri Kullanımı, Undergraduate, 2016 - 2017
Bilgisayar - I, Undergraduate, 2016 - 2017
Temel Bilgi Teknolojileri Kullanımı, Undergraduate, 2016 - 2017
Bilgisayar - I, Undergraduate, 2016 - 2017
Bilgisayar - II, Undergraduate, 2015 - 2016
Temel Bilgi Teknolojileri Kullanımı, Undergraduate, 2016 - 2017
Bilgisayar - II, Undergraduate, 2015 - 2016

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Brain tumors classification with deep learning using data augmentation**
GÜRKAHRAMAN K., KARAKIŞ R.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.36, no.2, pp.997-1011, 2021 (Peer-Reviewed Journal)
- II. **Evaluation of segmented brain regions for medical image steganography**
KARAKIŞ R., GÜRKAHRAMAN K., ÇİĞDEM B., ÖZTOPRAK İ., Topaktas A. S.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.36, no.4, pp.2301-2314, 2021 (Peer-Reviewed Journal)
- III. **A novel fuzzy logic-based image steganography method to ensure medical data security**
Karalcis R., Guler J., Capraz I., Bilir E.
COMPUTERS IN BIOLOGY AND MEDICINE, vol.67, pp.172-183, 2015 (Peer-Reviewed Journal)
- IV. **A genetic algorithm model based on artificial neural network for prediction of the axillary lymph node status in breast cancer**

KARAKIŞ R., Tez M., KILIÇ Y. A. , Kuru Y., Guler I.

ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE, vol.26, no.3, pp.945-950, 2013 (Peer-Reviewed Journal)

- V. **Postgraduate students attitudes towards distance learning The case study of Gazi University**
IŞIK A. H. , KARAKIŞ R., GÜLER İ.
Procedia - Social and Behavioral Sciences, vol.9, pp.218-222, 2010 (Peer-Reviewed Journal)
- VI. **Interpretation of MR images using self-organizing maps and knowledge-based expert systems**
Gueler I., Demirhan A., KARAKIŞ R.
DIGITAL SIGNAL PROCESSING, vol.19, no.4, pp.668-677, 2009 (Peer-Reviewed Journal)
- VII. **MR images restoration with the use of fuzzy filter having adaptive membership parameters**
Guler I., Toprak A., Demirhan A., KARAKIŞ R.
JOURNAL OF MEDICAL SYSTEMS, vol.32, no.3, pp.229-234, 2008 (Peer-Reviewed Journal)

Articles Published in Other Journals

- I. **EDGE-BASED WATERMARKING IN REGIONS OF NONE INTEREST FOR THE SECURITY OF MEDICAL IMAGES**
Karakış R., Gürkahraman K.
Adıyaman Üniversitesi Mühendislik Bilimleri Dergisi, vol.8, no.14, pp.154-168, 2021 (Peer-Reviewed Journal)
- II. **Steganalysis with Deep Learning on Medical Images**
Karakış R., Gürkahraman K.
Bilişim Teknolojileri Dergisi, vol.14, no.2, pp.151-159, 2021 (Peer-Reviewed Journal)
- III. **Use of Hybrid Methods in Medical DICOM Data Security**
Balcı D., Karakış R., Güler I.
Düzce Üniversitesi Bilim ve Teknoloji Dergisi, vol.8, no.2, pp.1295-1306, 2020 (Peer-Reviewed Journal)
- IV. **EEG Source Localization Using a Genetic Algorithm Based Artificial Neural Network**
KARAKIŞ R., ÇAPRAZ İ., BİLİR E., GÜLER İ.
Recent Patents on Biomedical Engineering, vol.6, no.3, pp.188-194, 2014 (Peer-Reviewed Journal)
- V. **Semantic Wiki A Tool for Collaborative Learning Environment in Computer Engineering Education**
ÇETİN G., KARAKIŞ R., ÇETİN A.
JOURNAL OF EDUCATION AND FUTURE-EGITIM VE GELECEK DERGISI, vol.4, pp.77-86, 2013 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Steganography and Medical Data Security**
Karakış R., Güler İ.
in: Cryptographic and Information Security Approaches for Images and Videos, S. Ramakrishnan, Editor, CRC, New York , Florida, pp.627-660, 2018

Refereed Congress / Symposium Publications in Proceedings

- I. **Medical Image Steganalysis using Deep Convolutional Neural Network**
Karakış R.
International Conference on Engineering Technologies (ICENTE'21) , Konya, Turkey, 18 - 20 November 2021, pp.88-92
- II. **Classification of Brain Tumors using Convolutional Neural Network from MR Images Evrimsel Sinir Ağı Kullanılarak MR Görüntülerinden Beyin Tümörlerinin Sınıflandırılması**

Gungen C., POLAT Ö., KARAKIŞ R.

28th Signal Processing and Communications Applications Conference, SIU 2020, Gaziantep, Turkey, 5 - 07 October 2020

- III. **Steganalysis on Medical Images with Support Vector Machine**
Maroof Ozcan F. B. , Karakış R., Güler İ.
2020 28th Signal Processing and Communications Applications Conference (SIU), Gaziantep, Turkey, 5 - 07 October 2020, pp.1-4
- IV. **FPGA TABANLI ÜÇ BOYUTLU LAZER TARAYICI TASARIMI**
Gedik M. İ. , Karakış R., Ünsal E.
ULUSLARARASI 19 MAYIS YENİLİKÇİ BİLİMSEL YAKLAŞIMLAR KONGRESİ, Samsun, Turkey, 27 December 2019 - 29 December 2020, pp.797-805
- V. **Hibrit Yöntemlerle Medikal Görüntülerin Güvenliğinin Sağlanması Üzerine Araştırma**
BALCI D., KARAKIŞ R., GÜLER İ.
INTERNATIONAL CONGRESS on ENGINEERING and ARCHITECTURE, Alanya, Turkey, 14 - 16 November 2018, pp.882-889
- VI. **Hiding Patient Information Into Magnetic Resonance Images Using DNA Based Wavelet Transform**
KARAKIŞ R., GÜRKAHRAMAN K., ÇİĞDEM B., ÖZTOPRAK İ., TOPAKTAŞ A. S.
The International Journal of Arts Sciences' (IJAS) American Canadian Conference for Engineering and Technology, Montreal, Canada, 30 May - 02 June 2018
- VII. **IMPROVEMENT OF INCORRECT VELOCITY VECTORS IN PARTICLE IMAGE VELOCIMETRY USING ORDER STATISTICAL METHOD**
GÜRKAHRAMAN K., KARAKIŞ R., TEMEL Ü. N.
International Conference on Engineering Technologies (ICENTE'17), Konya, Turkey, 7 - 09 December 2017, pp.30
- VIII. **Embedding Patient Information into Region of Non Interests for Medical Images Using DNA Encryption**
KARAKIŞ R., GÜRKAHRAMAN K.
International Conference on Engineering Technologies (ICENTE'17), Konya, Turkey, 7 - 09 December 2017, pp.33
- IX. **Image Steganography Tool for Different Images Types**
KARAKIŞ R., GÜLER İ.
The 8th International Advanced Technologies Symposium (IATS'17), Elazığ, Turkey, 19 - 22 October 2017, pp.2333-2339
- X. **Survival Analysis of Gastric Cancer Patients by Pattern Recognition Techniques**
KARAKIŞ R., GÜNDOĞDU S. B. , TEZ M., GÜLER İ.
The 8th International Advanced Technologies Symposium (IATS'17), Elazığ, Turkey, 19 - 22 October 2017, pp.2326-2332
- XI. **An Implementation of DNA based Security Model in Medical Data**
KARAKIŞ R., GÜRKAHRAMAN K.
The 3th International Conference on Engineering and Natural Sciences (ICENS 2017), Budapest, Hungary, 4 - 06 May 2017, pp.1105-1110
- XII. **Medikal Görüntülerin Güvenliği için Bulanık Mantık Tabanlı Steganografi Yöntemi**
KARAKIŞ R., GÜLER İ., ÇAPRAZ İ., BİLİR E.
IEEE 2015 23rd Signal Processing and Communications Applications Conference (SIU 2015), Malatya, Turkey, 19 - 23 May 2015, pp.176-179
- XIII. **Medikal Sinyaller için Benzerlik Tabanlı Görüntü Steganografi Uygulaması**
KARAKIŞ R., GÜLER İ., ÇAPRAZ İ., BİLİR E.
Akademik Bilişim 2015, Turkey, 20 - 24 January 2015, pp.375-381
- XIV. **Medikal Dicom Görüntüler için Steganografi Uygulaması**
KARAKIŞ R., GÜLER İ.
7th International Conference on Information Security and Cryptology, İstanbul, Turkey, 22 - 25 October 2014, pp.340-344
- XV. **Bulanık Mantık Tabanlı Görüntü Steganografi Uygulaması**

KARAKIŞ R., GÜLER İ.

IEEE 2014 22nd Signal Processing and Communications Applications Conference (SIU 2014), Trabzon, Turkey, 23 - 26 April 2014, pp.156-159

XVI. Feature Selection in Pulmonary Function Test Data with Machine Learning Methods

KARAKIŞ R., IŞIK A. H. , GÜLER İ.

2013 IEEE 21th Signal Processing and Communications Applications Conference (SIU 2013), Cyprus (Kktc), 23 - 27 April 2013, pp.1-4

XVII. A wiki application for artificial neural network course in engineering education

ÇETİN G., KARAKIŞ R.

Interactive Collaborative Learning (ICL) 2012 15th International Conference on, Villach, Austria, 26 - 28 September 2012, pp.1-4

XVIII. Gazi Üniversitesi Bilişim Enstitüsü Web Sayfasının Kullanılabilirlik Analizi

IŞIK A. H. , KARAKIŞ R., GÜLER İ.

2nd International Conference on New Trends in Education and Their Implications ICONTE 2011, Antalya, Turkey, 27 - 29 April 2011, pp.607-614

XIX. Classification The Axillary Lymph Node Status of Breast Cancer Patients with the Analysis of Pattern Recognition

KARAKIŞ R., TEZ M., GÜLER İ.

2011 IEEE 19th Signal Processing and Communications Applications Conference (SIU 2011), Antalya, Turkey, 24 - 28 April 2011, pp.988-991

Supported Projects

Karakış R., Project Supported by Higher Education Institutions, FPGA Tabanlı 3D Lazer Tarayıcı Tasarımı ve Gerçekleştirimi, 2018 - 2020

KARAKIŞ R., Project Supported by Higher Education Institutions, Epileptik Hastalara ait Elektroensefalogram ve Manyetik Rezonans Görüntüsü Verileri için Veri Gizleme Uygulaması, 2017 - 2019

KARAKIŞ R., Project Supported by Higher Education Institutions, Beyin Fonksiyonlarının Oluştığı Yerlerin Imge Çakıştırma ve Örüntü Tanıma Teknikleri ile fMRG İmgelerinden Belirlenmesi, 2012 - 2013

Güler İ., Demirhan A., Karakış R., Project Supported by Higher Education Institutions, MR Görüntülerinin Bilgi Tabanlı Yapay Zeka Teknikleri Kullanılarak Yorumlanması, 2007 - 2013

Scientific Refereeing

COMPUTERS IN BIOLOGY AND MEDICINE, SCI Journal, May 2021

NEUROCOMPUTING, SCI Journal, June 2018

INFORMATION SCIENCES, SCI Journal, June 2017

INFORMATION SCIENCES, SCI Journal, June 2016

JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, SCI Journal, June 2016

TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, SCI Journal, June 2016

ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE, SCI Journal, June 2015

Metrics

Publication: 32

Citation (WoS): 75

Citation (Scopus): 136

H-Index (WoS): 4

H-Index (Scopus): 6

Scholarships

2219 - Yurt Dışı Doktora Sonrası Araştırma Burs Programı, TUBITAK, 2019 - 2020